

**ABSTRACT****METHOD OF AND APPARATUS FOR POWER CONTROL**

When transmitting bursty data, for example packet data, a mobile terminal uses information relating to signal strength at the base station to determine the power at which the mobile terminal must transmit in order to produce a required signal to noise ratio at the base station. In frequency division duplex techniques, multi-path fading on the down-link is uncorrelated with multi-path fading on the up-link. Power measurements can be averaged at the mobile terminal over a likely fading period. However, this does not cater for instantaneous power level fluctuations in the up-link direction, which can result in the power transmitted by the mobile terminal being too high or too low at the start of a frame. The invention maintains a predetermined signal to noise ratio. At a given time slot, a power level is determined which, over remaining time slots, is based on the sum of power levels corresponding to previous time slots and the number of time slots remaining in the frame. Where multi-path fading occurs, smaller variations in average power over the frame will occur leading to improved system capacity.

[Figure 2]